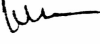


MEMORANDUM

24 September 1981

TO: Leonard Lachmann

COPY: Joe C. Fox Gun Bhakta
Dan Swindler C.B. Wilson

FROM: Kedar Morarka 

SUBJECT: EVALUATION OF TI HOUSTON PLASTIC PAINTING FACILITY

I visited TI-Houston, Stafford plant on Sept. 18, 1981 to evaluate and familiarize with their plastic painting facility. Painting is one of the options being considered on the 'ALC' program.

In brief, Houston paint shop is organized as a part of the service group in DSG. Mainly they paint large computer and peripheral cases, mostly in one color. Typically, the volume is low and masking is not required. However, they showed me a semi-automatic masking fixture they used previously on a printer cover.

The paint shop has two units. One is, two booth small hand spray unit designed for experimental and prototype work. The main unit was installed 6 months back at an investment of over \$600,000. This unit consists of 158 hangers on a closed loop overhead conveyer which loops thru 6 painting booths and a drying oven. The paint booths are equipped with vertically reciprocating electrostatic spray guns. At capacity, the cycle time is one hour. Thus, with multiple part rack design, the unit can paint from 500-1000 parts per hour. Paint shop is also supplemented by a well equipped lab and silk screening facility.

While I was there, we painted several bottom cases of Touch & Tell. We learned that even the slightest molding defect including sink marks and scratches are enhanced by painting. This can be minimized by using a coat of primer, which however tends to fill up the fine details and texture on the part. We will evaluate these samples along with other samples we are in process of obtaining from outside vendors.

Larry Taub, the engineer in charge of paint shop in Houston will send us some ball park cost figures on piece part and tooling requirements. He also felt that polyurethane paint will have no problem in meeting our mechanical and environmental requirements.

In the same paint cycle, we can also spray the inside surface with an appropriate conductive paint to minimize EMI/RFI problems. Larry will be glad to help us in selecting a suitable conductive paint and supplying samples for our testing.

My feelings is that, if we eventually decide to paint our parts, then Houston will probably be our most economical source. However, we will have to work closely with them in developing fixtures and techniques to achieve the quality we need. The development time will probably be longer with Houston than an outside vendor, because although they have the capability, they lack experience in cosmetic painting of the nature we are interested in.